

Section 1.3 Notes Day 2

Recall: Polya's Four-Step Method

1. Understand the Problem
2. Devise a Plan
3. Carry out the plan
4. Look Back

Read Section 1.3 Examples 4-6 in textbook

1) Solving a Problem by Making a List

Suppose you are an engineer programming the automatic gate for a 30-cent toll. The gate should accept exact change only. It should not accept pennies. How many coin combinations must you program the gate to accept?

2) Solving a Problem by Using a (Tree) Diagram

Your casual wardrobe is rather limited- just two pairs of jeans to choose from (one blue, one black) and three T-shirts to choose from (one beige, one yellow, one blue). How many different outfits can you form?

3) Using a reasonable Option to Solve a Problem with More than One Solution.

A sales director who lives in city A is required to fly to regional offices in cities B, C, D, and E. The diagram below shows the one-way airfares between any two cities. Give the sales director an order for visiting cities B, C, D, and E once, returning home to city A, for less than \$1460.

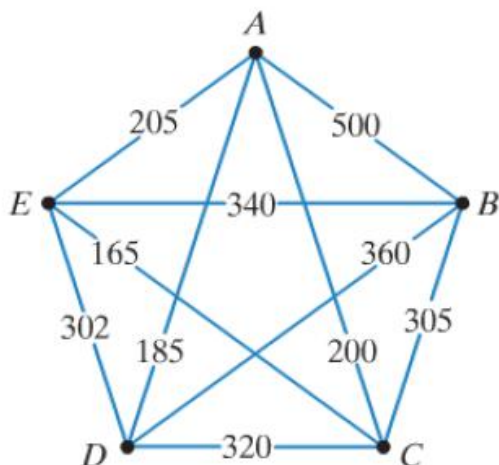


FIGURE 1.12